REMARKS

This is in response to the Office Action mailed on August 3, 2007. In this Office Action, claims 1-13, 15-18, 24-27 and 29 were rejected under 35 U.S.C. §102 as being anticipated by Lin et al. (US Patent No. 7,146,308, hereinafter Lin). Claims 14, 19-23 and 28 were objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 15 was further objected to because it recited the limitation of "a sufficient scores". In this response claim 29 has been cancelled, a new claim 30 has been added, claim 15 is amended, and the remaining claims are unchanged.

In this response, claim 15 has been amended to include "a sufficient score". It is believed that claim 15 is now in proper form.

Claim 29 has been cancelled a new independent claim 30 has been added. New independent claim 30 recites the limitations in independent claim 1 and previous claim 29. The Office Action indicated that claim 29 would be allowable it was rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 30 includes the limitations from claims 1 and 29 and is therefore believed to be in form for allowance.

Claim 1 was rejected under 35 U.S.C. §102(e) as being anticipated by Lin. In particular, it was pointed out in the Office Action on page 2, that "building a graph corresponding to the textual input" was recited at column 2, lines 37-39 of Lin. The Office Action also indicated that scoring sub-components of the graph is taught at column 2, lines 55-58 of Lin. The Lin reference teaches a facility for discovering a set of inference rules by analyzing a corpus of natural language text (abstract Lin). The corpus is parsed to identify grammatical relationships between words and to build dependency trees formed of the relationships between the words. Paths linking words in the dependency tree are identified. If two paths tend to link the same set of words, their meanings are taken to be similar. Inference rules are generated for each pair of similar paths. The output of the Lin system is a set of inference rules and a database in which the inference rules are stored. The rules generated by the system are interpretable by machines and used in other applications.

The present application is directed toward a method and system for identifying words, text fragments, or concepts of interest in a corpus of text. A graph is built that covers the corpus of text. The graph includes nodes and links, where nodes represent a word or a concept and links between the nodes represent directed relation names. A score is then computed for each node in the graph. Scores can also be computed for larger sub-graph portions of the graph (such as tuples). The scores are used to identify desired sub-graph portions of the graph.

As pointed out on page 11 of the specification, the graph builder receives an input text and builds a graph that covers an entire input text. This is illustratively done by the link graphs for the individual sentences in an input text. The individual graphs are then connected together to form the overall graph. In doing this, the individual graphs are somewhat collapsed in that words or concepts in the individual graphs will correspond to a single node in the overall graph, no matter how many times they occur in the individual graphs.

The Office Action asserts that Lin discloses building a graph corresponding to the textual input. However, the cited portion of Lin column 2, lines 37-39 recites that "the corpus is parsed to identify grammatical relationships between words and to build dependency trees formed of the relationships between the words." In the very next line, Lin also recites that the paths linking words in the dependency trees are identified. Lin goes on to state that if two paths tend to link the same sets of words, their meanings are taken to be similar. Lin therefore compares paths of two different dependency trees and therefore uses more than one graph. This is in contrast to the current application where only one graph is used. The graph is made up of smaller sub-graphs corresponding to textual input. However, nowhere in Lin does it state that the cited dependency trees should be used to create a larger graph. Nowhere does Lin teach or recite using a subcomponent of a larger graph.

The Office Action also asserts that scoring sub-graph components of the graph is taught by Lin at column 2, lines 55-58. However, column 2, lines 55-58, recite that "the similarity measure is based on the frequency of occurrences of words in the paths, where the words are at the end points of the paths". As pointed out in Lin, paragraph 1 of the summary of the invention, paths linking words in the dependency trees are identified. If two paths tend to

link the same set of words, their meanings are taken to be similar. This is in contrast to the present invention where sub-graph components of the graph are scored as opposed to separate graphs. There is no teaching that a single graph should be used and then that separate sub-graph components of this graph should be scored. Instead, Lin teaches creating several different graphs and scoring different components of these separate graphs together to determine the similarity measure. It is respectfully submitted for at least these reasons, the present invention is patentable over the prior art.

The foregoing remarks are intended to assist the Office in examining the application and in the course of explanation may employ shortened or more specific or variant descriptions of some of the claim language. Such descriptions are not intended to limit the scope of the claims; the actual claim language should be considered in each case. Furthermore, the remarks are not to be considered exhaustive of the facets of the invention which are rendered patentable, being only examples of certain advantageous features and differences, which applicant's attorney chooses to mention at this time. For the foregoing reasons, applicant reserves the right to submit additional evidence showing the distinction between applicant's invention to be unobvious in view of the prior art. Furthermore, in commenting on the references and in order to facilitate a better understanding of the differences that are expressed in the claims, certain details of distinction between the same and the present invention have been mentioned, even though such differences do not appear in all of the claims. It is not intended by mentioning any such unclaimed distinctions to create any implied limitations in the claims.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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